

**APPENDIX III**

**Serial No.: 09/955,604**

**Docket No.: 49933US032**

---

**Office Action and Restriction Requirement mailed from the U.S. Patent and  
Trademark Office on January 30, 2002.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,604	09/19/2001	Timothy L. Hoopman	49933US032	1214

7590 01/30/2002

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P.O. Box 33427  
St. Paul, MN 55133-3427

EXAMINER

LEYSON, JOSEPH S

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 01/30/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

2/1/02

<b>Office Action Summary</b>	Application N .	Applicant(s)
	09/955,604	HOOPMAN ET AL.
	Examiner Joseph Leyson	Art Unit 1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 19 September 2001.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 23,24,30-32,56,57,63,64,89,90,92,93,113,114 and 133-153 is/are pending in the application.

4a) Of the above claim(s) 56,57,63,64,113,114 and 149-153 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 23,24,30-32,89,90,92,93 and 133-148 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.
--	---

Art Unit: 1722

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148, drawn to a production tool, classified in class 425, subclass 470.

II. Claims 56, 57, 63, 64, 113, 114 and 149-153, drawn to a method of making a production tool, classified in class 264, subclass 219.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as a process which does not include creating a design wherein the production tool is made in a random fashion by cutting randomly or by randomly placing elements on a substrate.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by

Art Unit: 1722

their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Ann Muetting on 16 January 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148. Affirmation of this election must be made by applicant in replying to this Office action. Claims 56, 57, 63, 64, 113, 114 and 149-153 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The disclosure is objected to because of the following informalities: The cross reference to the related applications on p. 1, lines 7-11, should be deleted in view of the cross reference inserted by the amendment in the transmittal papers filed on 19 September 2001.

Appropriate correction is required.

Art Unit: 1722

7. Claims 133, 137 and 144 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 133 is redundant to claim 92 because if at least one of the base edge lengths of the first plurality is different from all of the base edge lengths of the second and third plurality and if at least one of the base edge lengths of the second plurality is different from all of the base edge lengths of the first and third plurality, then it is INHERENT that at least one of the base edge lengths of the third plurality is different from all the base edge lengths of the first and second plurality.

Claim 137 is redundant to claim 136 because if at least one of the base edge lengths of the first row is different from all of the base edge lengths of the second and third rows and if at least one of the base edge lengths of the second row is different from all of the base edge lengths of the first and third rows, then it is INHERENT that at least one of the base edge lengths of the third row is different from all the base edge lengths of the first and second rows.

Art Unit: 1722

Claim 144 is redundant to claim 143 because if at least one of the base edge lengths of the first plurality is different from all of the base edge lengths of the second and third plurality and if at least one of the base edge lengths of the second plurality is different from all of the base edge lengths of the first and third plurality, then it is INHERENT that at least one of the base edge lengths of the third plurality is different from all the base edge lengths of the first and second plurality.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 23, 30, 31, 89, 92 and 133-148 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis (-583).

Rochlis (-583) teaches a production tool suitable for use in manufacturing an abrasive article (col. 1, lines 50-56) which includes a plurality of cavities having different geometric shapes, angles and dimensions. The production tool can be a coating roll (fig. 19) or an etched (engraved) metal roll (col. 3, lines 52-63; col. 13, lines 15-17 and 62-67). The production

Art Unit: 1722

tool can have parallel rows of cavities as shown in figs. 21 and 22 with a first plurality of rectangular cavities, a second plurality of circular cavities, and a third plurality of triangular cavities. At least one of the angles or base edge lengths of the first plurality is different from all the angles or base edge lengths of the second plurality and of the third plurality. At least one of the angles or base edge lengths of the second plurality is different from all the angles or base edge lengths of the first plurality and of the third plurality.

Rochlis(-583) discloses that the cavities of the production tool can have different sizes (col. 2, lines 66-70; col. 6, lines 17-22; col. 9, line 61, to col. 10, line 52; i.e., different heights). Rochlis(-583) discloses that the cavities and products can have pyramidal or truncated pyramidal shapes (i.e., figs. 10-13; col. 13, lines 51-58). Rochlis(-583) discloses that the production tool can have a plurality of different types (shapes) of cavities (col. 13, lines 29-35). Figs. 21 and 22 show a first row of cavities with a rectangular cross section which defines a first base edge length extending parallel to the first row and a second base edge length extending perpendicular to the first row, wherein the second base length of all the cavities in the first row is the same (of course they also can be different sizes as mentioned above), and show a first

Art Unit: 1722

rectangular cavity adjacent a second circular cavity, the second circular cavity being adjacent a third triangular cavity.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 23, 24, 31, 32, 89, 90, 92, 93 and 133-148 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis(-583).

Art Unit: 1722

The 102 rejection above is based upon the interpretation of the alternatives for the production tool disclosed by Rochlis(-583) as being anticipatory. If applicants believe that the disclosed alternatives are NOT anticipatory, then it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the production tool of Rochlis(-583) with the alternatives disclosed by Rochlis(-583) because Rochlis(-583) explicitly discloses that the production tool can be modified with such disclosed alternatives.

Rochlis(-583) discloses a production tool having 3 different types or shapes of cavities defining three pluralities or groups of cavities (figs. 21 and 22), but does NOT explicitly disclose a fourth plurality or group of cavities having a fourth different type of cavity. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the production tool to have four pluralities or group of cavities having four different types of cavity because Rochlis(-583) discloses that the production tool can have a plurality of different types of cavities and/or because Rochlis(-583: figs. 21 and 22) discloses a production tool example having not just two but three pluralities or groups of cavities having three different types of cavities. Note that different shapes will read on the respective instant claims.

Art Unit: 1722

For example, if the three different types had cross sections of a square, a pentagon, and a hexagon, then each of the cavities would have a boundary defined by at least four surfaces wherein adjacent planar surfaces of one cavity meet at an edge to define an angle of intersection therebetween, wherein the at least one angle of intersection of the first cavity is different from all the angles of the second and third cavities, and wherein at least one angle of intersection of the second cavity is different from all the angles of intersection of the first and third cavities. Various different types would also provide different base edge lengths.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148 are provisionally rejected under the judicially created doctrine of

Art Unit: 1722

obviousness-type double patenting as being unpatentable over claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 of copending Application No. 09/520,032. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time of the invention to eliminate the limitation of each cavity having a single opening of claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 of copending Application No.

09/520,032 because it is well within the artisan of ordinary skill to make integral that which was separable or to make separable that which was integral. Generally there is no invention in making integral that which was before in several parts, In re Lockhart, 90 USPQ 214; In re Larson, 144 USPQ 347. The mere fact that a given structure is integral does not preclude its consisting of various elements, Howard v. Detroit Stove Works, 150 U.S. 164.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (703) 308-2647. The examiner can normally be reached on M-F(8:30-6:00) First Friday Off.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

82

jl

January 18, 2002

  
NAM NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

**Notice of References Cited**Application/Control No.  
09/955,604Applicant(s)/Patent Under  
Reexamination  
HOOPMAN ET AL.Examiner  
Joseph LeysonArt Unit  
1722

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-3312583	04-1967	Rochlis	---
B	US-			
C	US-			
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U		
V		
W		
X		

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.